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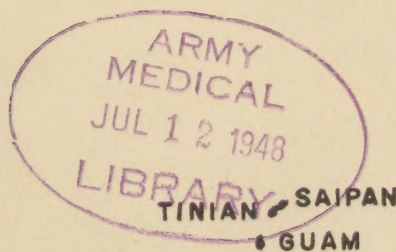
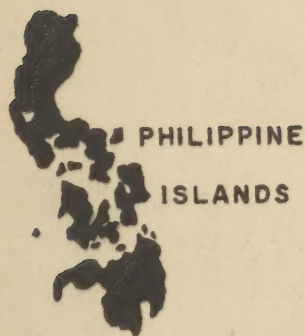
VOL III-NO 7

SURGEON'S CIRCULAR LETTER



1 JUL 1948

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MED SEC GHQ FEC

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Organization of the Medical Section, GHQ FEC

The following is a list of commissioned personnel currently assigned or attached to the Medical Section:

Maj. Gen. James A. Bethes, MC, U.S. Army	Surgeon
Colonel George N. Schuhmann, MC	Deputy Surgeon
Major James L. LaCombe, MSC	Executive Officer

ADMINISTRATIVE BRANCH

Major James L. LaCombe, MSC
Lt. Elvis E. Bates, MSC

Chief
Assistant

PLANS AND OPERATIONS DIVISION

Captain Felix G. Rajecki, MSC
Captain Vincent I. Hack, MSC
Captain James D. Grindell, MSC
Lt. Maurice F. Watson, MSC

Director
Publications Officer
Medical Records Officer
Plans & Operations Officer

SUPPLY AND FISCAL DIVISION

Major John V. Painter, MSC
Captain Robert E. Watson, MSC
Captain Glenn C. Irving, MSC

Director
Assistant Director
Budget & Construction Off

PERSONNEL DIVISION

Lt. Col. Wilfred A. Emond, MSC
Major Sam A. Flemmons, MSC

Director
Assistant Director

CONSULTANTS

Colonel Thomas C. Daniels, DC
Colonel Irby J. Pollard, VC
Colonel George N. Schuhmann, MC
Colonel Robert E. Blount, MC
Lt. Col. Rosalie L. Colhoun, ANC
Major Kermit E. Jones, MSC

Dental
Veterinary
Preventive Medicine
Medical
Nursing
Sanitary Engineer

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GENERAL HEADQUARTERS
FAR EAST COMMAND
MEDICAL SECTION

SURGEON'S CIRCULAR LETTER

APD 500

NUMBER 7

1 July 1948

PART I

ADMINISTRATIVE

SUBJECT

SECTION

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I. Organization of the Medical Section

Departures. Colonel John C. Fitzpatrick, MC, Deputy Surgeon and Director of Plans and Operations Division, Medical Section, General Headquarters, Far East Command, completed his tour of duty and has left for his new assignment in the Office of The Surgeon General, Washington, D.C.

Lt. Col. Warner F. Bowers, MC, Surgical Consultant, Medical Section, General Headquarters, Far East Command, completed his tour of duty and has left for his new assignment in the Office of The Surgeon General, Washington, D. C.

Lt. Col. Frederick H. Gibbs, MSC, Executive Officer and Deputy Director of Plans and Operations Division, Medical Section, General Headquarters, Far East Command, completed his tour of duty and has left for his new assignment at Brooke Medical Center, San Antonio, Texas.

2nd Lt. Edwin W. Payne, MSC, Assistant, Administrative Branch, Medical Section, General Headquarters, Far East Command, has departed for the zone of interior for separation from the service.

II. Shortage of Medical Corps Officers, Far East Command

Information received from the Office of The Surgeon General reveals that by 30 June 1948 a 60 percent shortage of medical specialists, mostly B and C grade, will exist. However, the present shortage of Medical Corps officers will be partially alleviated when the last group of officers of the Army Specialized Training Program complete the basic course at Brooke Army Medical Center and become available for overseas assignments. There will also be a 65 percent shortage of Dental Corps officers by late summer of this year. Every effort is being made by the Surgeon General's Office to distribute available personnel as equitably as possible; however, in all cases a better than pro rata share will receive overseas assignment. By 30 June 1948, a 30 to 35 percent world-wide shortage of nurses is anticipated; therefore, it is doubtful whether more than a small proportion of the losses of the Far East Command can be replaced in the near future.

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III. Additional Teams of Medical Specialists Arrive in Far East Command

The second and third teams of medical specialists have arrived from the United States for lecture tours in certain hospitals in the Far East Command.

On 21 April 1948 the second team comprising of Dr. Russell L. Mustard, Battle Creek, Michigan; Dr. Paul C. Colonna, Professor of Orthopedic Surgery, University of Pennsylvania; Lt. Col. Frank Bauer, Office of Medical Consultants Division, Washington, D. C., and Brig. Gen. Chas. M. Walson, Ret., Administrative Specialist, Greatbeck, New York, arrived for a tour of approximately thirty-five days.

The third team consisting of Dr. James R. Webster, Assistant Professor of Dermatology, Northwestern University Medical School, Chicago, Illinois; Dr. Wilbur D. Currier, Instructor in Otolaryngology at University of Southern California College of Medicine, and Dr. M. A. Blankenhorn, Professor of Medicine, University of Cincinnati, arrived 17 May 1948 for a tour of similar duration.

Their visit to the Far East Command was a part of an over-all program set up by the Consultants Division of The Surgeon General's Office to send expert medical consultants to the various foreign theaters. They visited as many hospitals and lectured to as many Army doctors on the modern advances in medicine as their time in the Far East Command permitted.

IV. Nursing Service

The Department of the Army made arrangements for twenty-seven Army nurses to attend a two week shop course in nursing conducted by the University of Pittsburgh. It is planned that additional members of the Army Nurse Corps will attend the succeeding work shops. The course consisted principally of training the administrators and educators in hospitals and schools of nursing in the many nursing problems which have arisen during the post-war period.

Director of the work shop, Mrs. Edna P. Gropp, BS, MA, was Chief of Nursing Personnel in The Surgeon General's Office during World War II.

V. Orientation Program For Nurses Reporting to a New Station by Mary C. Kin, Major, ANC and Captain Florence M. Pecora, ANC,

(Editor's Note: The following is the first of a series of topics discussed for the benefit of members of the Army Nurse Corps in the Far East Command.)

Desired results to be obtained from a proper orientation should: (1) produce a favorable first impression; (2) give needed encouragement to solve problems faced in a new environment; (3) facilitate the new nurse's acceptance by the group thereby easing her adjustment and assuring her success; (4) it should give her an insight as to the importance of her work and to the responsibilities which accompany an officer of the United States Army; (5) it makes for the foundation of good personnel relationships; (6) it gives an attitude of service, a sense of loyalty, and a spirit of cooperation.

In that there are peculiarities pertinent to each installation, frequent turn-over of personnel, oversea returns, recalled nurses, it is believed that an orientation program will aid in the over-all smooth functioning of the hospital and thus insure the ultimate good care of the patient.

Orientation should not cease after the first hour, day, or week, but be considered as one aspect of a continuous in-service education program . . . It should produce a feeling of "belongingness."

Objectives

A. Nurse.

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1. To aid in the adjustments conducive to a well-balanced happy life.
 2. To create a favorable attitude toward the hospital personnel and post.
 3. To acquaint the nurse with the hospital, the location and function of each department.
 4. To develop an understanding of the personnel policies.
 5. To help develop a sense of responsibility to uphold the high ideals and standards of the nursing profession and the Army in general.
- B. Patient.
1. To insure the patient safe and good nursing care.
- C. Hospital.
1. To provide an efficient nursing service.

Suggested Outline For An Orientation Program

- A. Introduction.
1. Nurse reports to Office of the Principal Chief Nurse.
 - a. Greet the new nurse, place the nurse at ease, make sure nurse has signed in on Register.
 - b. Request any records the nurse may have for the office.
 - c. Have nurse make out questionnaire or history sheet the nursing office may desire. Check leave record and discuss with nurse. Check immunization records.
 - d. Give the nurse a copy of the following information and discuss the policies with her. A copy of these regulations should be on all bulletin boards.
 - (1) Mess facilities: time, place, type, method of payment.
 - (2) Laundry facilities: personal, general, how dispensed, price list, method of payment.
 - (3) Club facilities: fees, policies.
 - (4) Maintenance of quarters: maid service, method of payment, duties of the maids; responsibilities of the nurse in the upkeep of the quarters; kitchen facilities; use of electrical appliances.
 - (5) Mail service: time place.
 - (6) Health program: sick book, quarters or hospital.
 - (7) Duty hours: day, night, how to determine days off (for night duty - before going on a leave and upon return); rest period or coffee hour while on duty; rotation and allocation (where duty assignments and changes are posted).
 - (8) Wearing of the uniform: on duty, off duty.
 - (9) Recreation and other facilities: post exchange, hobby, gymnasium and other sport areas, movie schedule (location of theaters), shopping centers of the community, telephone center, church and cultural opportunities.
 - (10) Transportation facilities: bus and train schedule, post bus line and shuttle bus, taxi service.
 - (11) Leave request policy: how made out, when made out.
 - (12) Information and education office: where located, educational facilities available to military personnel.
 - (13) Bulletin boards: how often nurse is to read them, where they are placed.
 - (14) "Customs of the Service": appointment to meet the Commanding Officer of the hospital, appointment to meet the Commanding General of the post, others.
 - (15) Channels of authority.
 2. After this short discussion, the Chief Nurse or her assistant escorts the nurse to the quarters.
 - a. Familiarizes new nurse with the surroundings.
 - b. Introduces nurse to others.
 - c. Makes sure that luggage is cared for.
 - d. Allows nurse to rest for a few minutes.
 3. Accompany nurse to following departments:
 - a. Military personnel: interview, receives copy of post regulations.
 - b. Finance Office: signs pay vouchers, make out allotments.

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4. Escort nurse on tour of major sections and departments of the hospital.

B. Orientation to the Assigned Department.

1. Nurse is to report to section supervisor at 0700 hours, day of duty.
 - a. Supervisor will escort nurse to ward or department and introduce her to nursing personnel.
 - b. Head nurse or department supervisor will further orient nurse.
2. Introduction.
 - a. Ward personnel, doctors, nurses, enlisted personnel, others.
 - b. Patients: formal introduction, type of patients, number of patients.
 - c. The ward in relation to the rest of the hospital.
3. Tour of the ward.
 - a. Nursing office, doctor's office, treatment rooms, linen closets (policies of lock and key responsibilities), patients' clothing room (locked at all times, keys carried by nurse), equipment and supply rooms, diet kitchens, washrooms, ward room (number, use), open ward (capacity), sunporches.
4. Routine of ward administration.
 - a. Charts (type).
 - b. Medications and treatments: method of administration, medicine roster, charting of medications, checking and charting of narcotics, carrying of the keys.
 - c. Source of supplies: sterile, nonsterile, special.
 - d. Reports: day and night, temperature record, afternoon or evening reports to Chief Nurse's office, time sheets for Chief Nurse's office, others; procedure book; forms and requests (where to be found, how to procure); hospital regulations and ward policies; fire rules and regulations; ward housekeeping (duties of enlisted personnel, duties of civilian personnel); maintenance and equipment (how requested, departments responsible); dietary service (bed patients, ambulatory patients, supplementary diets, serving of diets, kitchen policies).

C. Supplementary orientation Program.

1. Additional information should be available to the nurse either on the ward or through other sources. This may include information peculiar to the ward or department and any other information necessary.
 - a. Detailed 24-hour ward routine for the nurse.
 - b. Detailed duty roster for both patients and ward personnel.
 - c. Maps of the post and the hospital.
 - d. Other.

Summary and Conclusion

This project has been developed to aid Chief Nurses to plan an orientation program for newly reporting Army nurses. Depending upon the size of the hospital, location, and local policies, it may be necessary to alter some aspects of this program.

It is suggested that the initial tour in small installations be complete, including quarters, hospital, and post. In the larger general hospitals, it is advised that in the initial tour, only the sections or wards to which the nurse will be assigned be covered, including such special departments and clinics with which she will be working. In addition to these, the first tour should include those facilities which will serve as an aid to her comfort, such as Post Exchanges, Libraries, Clubs, etc. Later, a definite time should be set aside for a more complete coverage. Personal interviews with the Chief Nurse should be encouraged and arranged.

From this study it can be concluded that if a newly reporting Army nurse is properly oriented, she is a happier, more contented individual, whose care of the patient is efficient, and she considers herself a definite part of a smooth functioning hospital team. In addition, though the Chief Nurse, Supervisor or Head Nurse are essentially responsible, the cooperation of all personnel is necessary to insure the complete success of an orientation program.

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PART II

TECHNICAL

SUBJECT

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VII. Medical Treatment of Peptic Ulcers (Part II) by Sam A. Overstreet, MD,
Associate Professor of Medicine, University of Louisville, Kentucky

REST FOR THE AMBULATORY PATIENT. If the patient continues on his job he is instructed to rest, during the first month, at all times except when actually at work. Nine or ten hours of rest in bed each night and as complete rest as possible over week ends and holidays is urged. This amount of rest may be varied. If he does not do well during the first week or two he is advised to quit his work and obtain more complete rest. If, on the schedule given, he becomes symptom-free, gains weight and does well generally he is allowed to resume more or less his usual habits of living after about four weeks.

SENSITIVITY TO FOODS. Some patients are allergic to milk, eggs, or other of the foods usually included in ulcer diets. While some show no unfavorable reaction to milk used in ordinary amounts they do manifest toxic reactions to the amounts now prescribed. It becomes a rather difficult problem then but using a minimal amount of milk and more of bread, potatoes, cereals, vegetables and meats seems not to retard their progress.

AMINO ACIDS. Protein hydrolysate mixed with detrimaltose or amigen one part to three parts of water provides a highly nourishing food reported to be superior to the time honored milk mixtures. There are now on the market several excellent proprietary preparations incorporating this principle. This plan certainly provides an alternate especially for the patient who tolerates milk poorly or when it is desired to build up the weight and strength more rapidly.

COMPLICATIONS OF PEPTIC ULCER. The foregoing statements with regard to peptic ulcer have been based upon the assumption that we are dealing with a simple uncomplicated ulcer, although it may be of long standing. The complications which arise are commonly five in number and demand very special consideration in treatment. These are hemorrhage, perforation, obstruction, malignant change, and intractable chronicity.

HEMORRHAGE. Gross hemorrhage from ulcer occurs in a comparatively high percentage of cases. It is generally accepted that perhaps 25% of all ulcers bleed grossly, that is, a sufficient amount to have a constant appearance of occult blood in the stool or to appreciably effect the patient's blood count. Massive hemorrhage, that is, the immediate loss of a large amount of blood, say a pint, will occur in a very much smaller percentage, perhaps 5% or less, of all ulcer cases. It is not infrequent that the loss of blood, either by vomiting or by bowel, may constitute the first symptom or bring the patient to see the doctor, and a search for the cause turn up the presence of a peptic ulcer. By far the most frequent cause of bleeding from the upper intestinal tract is ulcer.

TREATMENT: 1. Gross hemorrhage: While detectible hemorrhage is a complication of ulcer, it does not require special consideration other than that the limitation of diet is adhered to very strictly until the appearance of the blood is no longer appreciable. It is not always possible even to put the patient to bed for the duration of this bleeding, although this is certainly desirable.

2. Massive hemorrhage: Confronted with the patient who has vomited up a large amount of blood or lost a considerable amount by bowel, a very definite plan of treatment should be pursued. Until the past few years this plan has consisted of:

1. Absolute rest in bed.
2. Physiologic rest of the stomach, that is, a period of starvation from 24 to 48 hours

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in which little or nothing is put into the stomach and the patient is fed by vein. (Starvation of eight to twelve hours or not more than twenty-four hours seems now better therapy.)

3. The use of opiates to keep the patient quiet and allay nervous apprehension and physical activity. (Dilaudid or demerol or pantapone may be preferred to the use of morphine.)

4. The use of an ice cap to the epigastrium. The value of this procedure is debated but is usually carried out and there seems no contraindication to its use.

5. Coagulants, either by mouth or injection, are sometimes used but are of little value.

6. Gastric lavage to free the stomach of organized clots is sometimes, but seldom, indicated.

7. Blood transfusions. If the patient has lost a large amount of blood or if the blood count reveals a hemoglobin below 40% or a red count below 2,500,000, it is considered advisable to give one or more blood transfusions. The fear that transfusions of blood in patients with hypertension is contraindicated does not seem well founded. As a usual thing there is some degree of shock present after a massive hemorrhage and use of whole blood or plasma helps to counteract this. Transfusion of 500 cc. of blood in the presence of hypertension has repeatedly been shown not to elevate the pressure significantly. The blood, however, may be given, if preferred in 250cc. amounts instead of 500 cc.

This treatment is followed up by a strict ulcer regimen but with a period of at least a week's rest in bed after a complete cessation of hemorrhage.

Beginning in 1933, Muelengracht reported his first series of patients treated by an entirely different method. This is by feeding a liberal amount and variety of foods immediately after the hemorrhage began. The following diet was recommended by him:

Puree Diet. 6 a.m. Tea, bread and butter. 9 a.m. Oatmeal with milk, bread and butter. 1 p.m. Dinner. 3 p.m. Coca. 6 p.m. Bread and butter, sliced meats, cheese, etc., tea. All bread given has been white bread. The dinner includes a great variety of dishes. The main dishes are, for example, meat balls, timbale, broiled chops, omelet, fish balls, vegetables gratin, meat gratin, fish gratin, etc., mashed potatoes, and vegetable purees. In addition, soups of vegetables, tapioca pudding, etc. As to the quantity of meals, the patients have been allowed to take as much as they cared for. In some cases where the patients had lost large amounts of blood, they were given one or two transfusions soon after admission - Medication consists of: 1. Sodium bicarbonate, Magnesium subcarbonate a.a. 15 grams. Extr. hyoscyamus 2.0 grams. Of this, one teaspoon three times a day. 2. Tablets of iron lactate, 0.50 grams, three times a day. The diet is well balanced, of high caloric value, and contains liberal allowances of mineral and vitamin containing foods. The form of iron advocated does not seem important. The alkaline powders may or may not be used, depending upon the physician's feeling in regard to the necessity of alkalization.

The value of this prompt finding program has been attested by a great many well recognized authorities and is very generally used. In our hands it has proved entirely satisfactory. It is successful probably because it meets the patient's nutritional demands, counteracts the excessive gastric acidity which tends to cause deeper erosion of any ulcer, increases the intragastric or intraduodenal pressure and keeps the patient's fluid balance at a level that tends to counteract shock.

SURGERY. The treatment of massive hemorrhages generally is considered a medical problem. It is certain that under either surgical or medical plan there will be an appreciable mortality among these patients. It is also certain that surgery should most often be employed in the patients of older age groups. The reason for this is that the arteries contain more sclerotic changes and will contract and stop bleeding much less easily than in the younger patient. No one to date, however, has been able to establish any very satisfactory criterion by which to determine which patient is going to bleed on to death without surgery. Even in the older age groups, it seems still advisable to follow at least a reasonable period of medical management, and, if, after several transfusions, the hemorrhage is not checked, then to resort to surgery. The drawback to this method, of course, is that it puts in the surgeon's hands a much poorer risk. A reasonable compromise is to have surgical consultation in a case of massive hemorrhage in patients of older age and have him share the responsibility from the beginning.

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X-Ray Examination after Massive Hemorrhage: After massive hemorrhage, whether in a patient who has been under treatment or one who has not known that he has ulcer, X-Ray study should be delayed for seven to ten days because of the fear that the barium and manipulation necessary may excite fresh bleeding. It is surprising how often the most searching X-Ray study will fail to reveal an ulcer or other lesion which may reasonably be considered the source of the bleeding. This may be because the ulcer is small, the crater filled with organized, healing clot, or it is in an inaccessible area for satisfactory visualization. It is often because the hemorrhage has originated from some condition other than ulcer or malignancy. Some of these causes are varices of the esophagus, stomach or duodenum; breaking of an arteriosclerotic vessel into the intestinal or gastric cavity; hemorrhagic diseases such as purpura or leukemia; hemorrhagic gastritis.

PERFORATION. Perforation is the most dangerous complication of peptic ulcer, is the most dramatic, and is the one which requires immediate surgical aid. There is no choice of medical treatment for perforation. This complication must be considered, however, in two divisions.

1. Acute perforation, in which the patient is suddenly seized with pain due to the emptying of gastric content into the peritoneal cavity; This provides the most intense abdominal pain and rigidity of the abdominal muscles, usually described as board-like. It is usually accompanied by a certain degree of shock, disturbance of the pulse, and sometimes unconsciousness from pain. Not infrequently, this is the first serious symptom of peptic ulcer that occurs and is the first which causes the patient to consult a physician. Inquiry into the history, however, will usually reveal that the patient has suffered some of the symptoms of peptic ulcer prior to the occurrence of perforation.

2. Chronic perforation; Penetration of the gastric wall may occur slowly without the dramatic appearance described. For instance, the patient may be seized with a severe or moderately severe pain which still is tolerable and he is able to go about his work. He may continue about his work indefinitely with or without ulcer treatment, the perforation heal over, and surgery never be done.

TREATMENT. Treatment of either acute or chronic perforation is, by choice, surgical, and the patient should be put in the hands of a surgeon as early as possible. Whether simple closure of the ulcer, gastro-enterostomy, or resection is done will depend upon the condition of the patient and the judgment of the surgeon at the time. When the patient is first seen it is usually necessary to give him something to relieve the pain, although it is considered desirable to allow the surgeon to see him during the acute and severe period if possible in order to arrive at a diagnosis.

Differential Diagnosis of Perforation. There are a few things which may give pain similar to a ruptured ulcer. These are: (1) gall stone colic; (2) acute coronary occlusion; (3) stone in the urinary tract; (4) acute pancreatitis; (5) other causes. For instance, we saw one patient in the operating room and prepared for surgery with a diagnosis of probable ruptured peptic ulcer and it was determined that he had been bitten by a black widow spider. The patient was returned to his room without operation and recovered uneventfully.

Recurrence of Hemorrhage and Perforation. It must be recognized that the foregoing complications tend to recur. Hemorrhage may recur again and again; a second repair for a penetrating ulcer is not at all unusual. This fact has led perhaps more than any other to the development of Vagotomy as an improved surgical procedure which today holds out more promise than have the older types of surgery in the prevention of recurrence of ulcer and its complications, especially hemorrhage and perforation.

OBSTRUCTION. Obstruction of the stomach at the pylorus or duodenum from an ulcer at this point is a rather frequent complication. It must be first determined by careful study whether a retention of barium in the stomach is due to temporary spasm of the pyloric muscles or whether it is truly a pathological or organic obstruction. In a true organic obstruction from ulcer the stomach, over a period of time, dilates and is usually considerably larger and more atonic in appearance than is the normal stomach. This constitutes a valuable means of differentiating the condition roentgenologically from carcinoma. In carcinoma the stomach seldom dilates a great deal. A retention of a considerable amount of barium in the stomach for twenty-four hours may reasonably be considered as due to obstruction.

When one of these large, massively distended stomachs is first observed by X-Ray, it is not

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always possible to tell whether the obstruction is due to ulcer or to some other cause, because the ulcer crater so frequently cannot be visualized. Re-examinations during the period of treatment are sometimes necessary before an accurate diagnosis of ulcer is possible.

Vomiting of food is the most frequent symptom of obstruction. This is followed by malnutrition and sometimes by a marked degree of anemia. On physical examination there may be considerable distension of the dilated stomach with air or the peristaltic movement of the stomach may be seen through the thin abdominal wall and may possibly be mistaken for a tumor mass in the abdomen.

By X-Ray examination obstruction and dilation of the stomach is noted as described. By gastroscopic examination the mucosal markings of the stomach are usually thinned out and paler than normal in appearance.

TREATMENT. This is a surgical condition. When the diagnosis is made the patient should be advised at once that surgery is the treatment of choice. A percentage of these patients will insist upon medical treatment. This should consist of rest in bed, diet limited to liquids given in very small amounts at very frequent feedings and, if possible, the stomach should be washed out with saline or soda water the last thing each night. This allows a restoration in the tone of the muscles and eventually results in a very much better function. X-Ray examination after two or three weeks of careful medical treatment may reveal one of these three factors.

1. The obstruction may be due to edema of the mucosa incident to an acute ulcer. Rest of the intestinal tract with lavage over a period of a week may easily reduce the edema and allow a stomach distended to twice its normal size and completely atonic to resume its tone and approach normal function.

2. The obstruction may be due to spasticity of the pyloric sphincter, incident to irritation from a near-by ulcer or from nervous reaction alone. Rest, sedation, and the use of anti-spasmodics should afford relief and a return of normal function.

3. Upon the most careful X-Ray study we may believe the ulcer to be at or very near the pyloric sphincter, and to be the occasion of mechanical obstruction; whereas, at operation or upon re-examination after subsidence of symptoms, the ulcer is found well removed from this location, and only indirectly affecting the passage from the stomach to the duodenum.

One thing is certain - that the patient who continues on medical treatment and is allowed to go about his work probably has a degree of continued obstruction and there will be recurrences of the more or less complete obstruction, and it is my impression that when this complication arises the sooner the patient resorts to surgical treatment the better. Surgical treatment consists preferably in a resection of the pyloric portion of the stomach; the second treatment of choice is gastroenterostomy. Particularly in older patients this latter operation may be the treatment of choice because it is a less hazardous undertaking than resection. Vagotomy is contraindicated in obstruction unless an enterostomy is also done.

Of the three above discussed complications, any two may occur at one time. For instance, a massive hemorrhage may occur at the time of a perforation. Perforations may occur in an obstructed stomach. A massive hemorrhage may occur in a stomach which has been obstructed over a long period of time. These combinations of complications, however, do not appear to be very frequent.

MALIGNANT CHANGES. This condition or complication may be considered from two angles. One group feels that any ulcer or lesion of the stomach is potentially malignant and constitutes a surgical problem from the first. It is generally taught that an ulcer on or near the greater curvature of the stomach is almost certainly a malignant lesion. The other group, somewhat more conservative, feels that a lesion in the stomach should be studied with very great care to determine whether it is ulcer or malignant at the outset. Repeated examinations should be made during the course of treatment of the gastric ulcer and if it does not heal promptly and the crater disappear entirely, it should be subjected to early surgical treatment. It seems to me that this is the most rational attitude. There are certain characteristics by which an ulcer may be differentiated from an early malignancy roentgenologically, but these characteristics are not always detectable accurately. The gastric analysis is not an infallible criterion. The persistence of hemorrhage and the presence of occult blood in the stool cannot be always relied upon. The patient with an early malignancy may go for

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months without loss of weight and with the lesion apparently healing. It is most probable that gastric ulcers do not undergo malignant degeneration so frequently; we most probably work on the basis of a mistaken diagnosis and are treating a malignancy from the start which has been mistaken for an ulcer.

INTRACTIBLE CHRONICITY. When none of the above complications occur, a small percentage of patients, in spite of the most careful treatment, continue to complain of symptoms from peptic ulcer as persistent bleeding and persistent evidences of obstruction without dilation. Any of these complaints or complications if persisted in for a long time or if frequently recurring while under competent treatment constitute a surgical problem. In our present state of knowledge, gastric resection or gastro-enterostomy will be the operation of choice of many surgeons. The results of Vagotomy are being carefully observed by all and it seems probable that this will replace the older operations for the ulcer which proves intractable to medical treatment. In my own experience vagotomy, performed for sound reasons by surgeons skilled in its use, has been quite successful. Some post-operative gastric retentions have occurred. The plan, now frequently followed, of combining vagotomy with resection, or even gastro-enterostomy in selected cases, seems to be gaining favor as greater experience in the procedure has accumulated.

VIII. A Case of Reginal Enteritis by Robert M. Hardaway, Major, MC, Chief, Surgical Service, 34th General Hospital, APO 1054. Case Discussion by Warner F. Bowers, Lt. Col., MC, Surgical Consultant, Medical Section, SHQ, FEC

Mrs. J. G., age 25, wife of an Army Officer, was admitted to the 377th Station Hospital on 28 November 1947 with a history of intermittent lower abdominal pain for the past year. Pain was more pronounced in the right lower quadrant, constant, dull in character, exaggerated on walking, and was worse in the last four months. There had been no diarrhea or other G.I. symptoms. Physical examination showed marked tenderness in the right lower quadrant with moderate rebound tenderness and rigidity. It was felt that there was a small indurated mass in the right lower quadrant. W.B.C's were 4,400 with 60% polys - urine was negative. A diagnosis of chronic appendicitis was made and the patient operated on 1 December 1947. At operation an inflamed appendix was found, but there was also seen an inflammation of about the lower six inches of terminal ileum, to include the ileocecal valve. It was believed to be regional ileitis. The appendix was removed and the stump inverted. The patient had an uneventful recovery and on 10 December 1947 was transferred to the 34th General Hospital.

History revealed in addition to the above, that the patient had had a pararectal abscess incised and drained about one year previously and a small fistulous opening had been draining since. She had lost no weight.

Physical examination at that time revealed a well healed short right rectus incision. In the right lower quadrant, there was a hard, tender, smooth, fixed, three by two inch mass which was taken to be diseased cecum or terminal ileum. X-ray studies revealed a filling defect involving the medial half of the cecum to above the ileocecal valve and a "string sign" of the terminal five inches of ileum with an additional five inches constricted and distorted. White count was 7,200, 56% polys. Stools were negative. There were no symptoms at this time. It was decided to let the patient return home for Christmas. Whether surgery would be done here or in the United States was to be determined by telephone conversation with the Surgical Consultant of the Far East Command. This was done and it was decided that the surgery would be accomplished at the 34th General Hospital and would consist of an ileotransverse colostomy which might be sufficient to cause resolving of the disease process or if it did not, it would be a first stage of a resection of the diseased bowel. Accordingly the patient was readmitted to the 34th General Hospital on 14 January 1948. History at that time revealed that the pain had recurred in the epigastrium and right lower quadrant, worse following meals. She had also developed a moderate diarrhea. There had been some tarry stools. She had been somewhat nauseated but had not vomited. She had lost strength rather rapidly and had begun to lose weight. Physical examination was unchanged. She was prepared for surgery by a blood transfusion, even though her plasma proteins were normal, by sulfasuxadine 2 gms. 4 i.d., daily tap water enemas, multi-vitamin capsules and a low residue, high protein, high carbohydrate, high vitamin, high caloric diet.

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On 21 January 1948 operation was performed. The abdomen was entered through a right paramedian incision. The cecum was found to be greatly thickened, stony, hard, and fixed. The distal five inches of the ileum was found to be tremendously edematous with thick walls injected and with a slight fibrinous exudate. The next five inches was moderately edematous and injected. The regional lymph nodes for both these segments were greatly enlarged. The next twelve inches of ileum appeared normal and there were no enlarged, regional nodes. Approximately 22 inches above the ileocecal valve began an area about ten inches long of slight injection and some enlargement of some of the regional lymph nodes. This was considered to be a "skip" area. The ileum above this appeared normal. The right colon and the right half of the transverse colon appeared normal except for a slight injection which was interpreted as meaning mild involvement by the disease process. It was considered that the anastomosis should be made above the "skip" area in the ileum. A side to side isoperistaltic anastomosis of the ileum approximately eight inches above the proximal end of the "skip" area was made to the left half of the transverse colon, using continuous sutures of atraumatic chromic cat gut. Lambert sutures were used for the inner layer, and Cushing sutures for the outer layer. The lumen of the colon was entirely empty except for streaks of fibrinous exudate which apparently had come down from the proximal colon. The area of anastomosis did not seem involved in the disease process. An adequate opening easily admitting two fingers was obtained. The peritoneum and the posterior sheath were closed with continuous "0" chromic cat gut, the anterior rectus sheath with interrupted double 40 cotton, subcutaneous tissue with double 80 cotton, and skin with interrupted 40 cotton.

Postoperatively patient was fed intravenously entirely for four days, being given 1,000 cc. of 5% glucose in saline and 2,000 cc. of 10% glucose in water daily. She was given another blood transfusion and an ampule of vitamin "C" daily. Continuous Wangenstein suction was used until peristalsis returned on the third postoperative day, at which time she was started on a gradually increasing fluid diet. Her postoperative course was uneventful, her temperature not rising above 99 degrees. She was gotten out of bed on the first postoperative day and by the third postoperative day could walk up and down the halls to the office. She was discharged on her tenth postoperative day to return for a check up in one month.

When she returned for check up her symptoms had progressed. She had lost several pounds in weight and weighed only ninety pounds. The diarrhea had become severe and there was nausea and vomiting with severe abdominal cramps. Bloody stools were frequent. Her appetite was almost nil. It was decided that a resection of the terminal ileum and right colon was indicated. She was readmitted to the 34th General Hospital on 21 February 1948. She was prepared for surgery with 2,000 cc. of blood, two grams of sulfasuxadine every four hours, daily enemas, and a high caloric, high vitamin, low residue diet. On the day before operation she was given only liquids by mouth. On the 27th of February she was taken to the operating room. The abdomen was entered through a right paramedian incision excising the old operative scar. The small intestine, cecum, and transverse colon were found to be bound together with many fibrous adhesions. The adhesions were freed. Anastomosis of the ileum and transverse colon was found to be intact with an adequate lumen admitting two fingers. The "skip" area about 8" distal to the anastomosis of the ileum noted at the previous operation had disappeared. The terminal foot of ileum and cecum were greatly thickened and seemed unchanged from their condition at the previous operation. The ileum immediately distal to the anastomosis was clamped and cut with a phenol knife. The proximal stump was closed by means of a Kerr-Parker stitch of atraumatic chromic cat gut. The mesentery of the distal three feet of ileum was then clamped, cut, and tied with "0" chromic cat gut. An incision was then made in the peritoneum just lateral to the cecum and ascending colon. The cecum and ascending colon were then reflected medially; the ureter being visualized and avoided. The ileocolic and right colic vessels were double ligated with "0" chromic cat gut, and the entire cecum and ascending colon freed. The transverse colon was cut immediately proximal to the anastomosis with a phenol knife. The distal stump was closed with a Kerr-Parker stitch of atraumatic chromic cat gut. The entire terminal ileum and right colon were then removed. The right gutter was then reperitonealized by suturing the peritoneum with running "0" chromic cat gut. About a gram of crystalline granular sulfanilamide was sprinkled into the peritoneal cavity. The peritoneum and posterior rectus sheath were closed with continuous "0" chromic cat gut, the anterior rectus sheath with interrupted double 40 cotton, subcutaneous tissue with interrupted 80 cotton, and skin with interrupted 40 cotton. The pathological report of the removed segment of the bowel was as follows:

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Gross Description:

The specimen consists of a freshly removed segment of large and small bowel; the ileum is found to be 30 cm. in length (following detachment of the mesentery) and the large bowel (caecum and ascending colon) 20 cm. in length. The ileum in its proximal portion is of about normal thickness and no induration of the wall is noted; the surface is somewhat hyperemic, however, near the site of resection. On moving distally, there is palpable a slight thickening that gradually becomes more heavy, and for the last eight to ten cms. ahead of the ileo-caecal valve is quite marked. The mesentery of this same region is also thickened, slightly hyperemic, and many lymph nodes are palpable through the indurated mass. On opening the small bowel, it is noted the wall is of normal thickness in the proximal portion; however, there is moderate to marked thickening of the sub-mucosa and subserosa on moving toward the distal portion. Several of the Peyer's patches are noted but show nothing more than slight hyperemia - there is no ulceration of these structures. Eight cm. from the ileo-caecal valve there is rather abrupt atrophy with loss of the mucosa revealing a roughened red surface having a somewhat longitudinal roughening of the surface. Posterior and superior to the junction of the ileum and cecum is a thickened indurated, hyperemic portion of the mesentery - several small nodular masses are palpable through this mass. On cutting through the mass about five cc's of grayish-green suppurative material are found (portion taken for culture and smear). The taeniae coli were traced to their junction at the caecum and it was found the appendix had been previously removed; there is a small, fibrous, nodule on the corresponding inner surface of the caecum, and this is presumed to be the healed, inverted stump of the appendix. The ascending colon is not thickened, indurated or hyperemic. There is no atrophy or ulceration of the mucosa; no masses are found present.

Microscopic Examination:

The section of the proximal portion of the involved ileum shows the mucosa to be in quite notable folds, and the glandular structures of the mucosa are intact and normal appearing. There are several lymph nodules in this region that are normal also and show no hyperplasia or degeneration and in the underlying lamina propria of the submucosa there are several marked changes. There is notable edema of the increased amount of areolar fibrous connective tissue, there is a notable hyperemia of the vessels, and there is a moderately heavy cellular infiltration consisting principally of large and small lymphocytes and plasma cells and macrophages. There are also present numerous polymorphonuclear neutrophilic leucocytes and eosinophiles. The muscle layer is similarly infiltrated, but no degeneration or necrosis can be distinguished. There is again the picture of round cell infiltration, together with the polymorphonuclears cell types stated, in the thickened and hyperemic subserosa; in this same layer, a few multinucleated giant cells were seen. Two small areas of recent hemorrhage are found.

A section taken of the bowel near the ileocaecal valve shows much the same picture as that described, however, the round cell infiltration of all layers is much more pronounced and hyperemia is greater. This section shows desquamation of one entire segment of the lining mucosa, and the exposed surface is covered by a purulent exudate. Fibroblastic activity seems to be greater, but no degeneration of the muscle layers is detectable. There are no areas of caseous necrosis. Foci of proliferation of lymphoid cells are greater in number and size. Proliferation of capillary processes seems also present.

A section of the proximal portion of the ascending colon shows there to be a moderate number of inflammatory cells as seen in the ileum as its terminal portion. The degree of edema and fibrosis is not found, however, and no areas of necrosis or degeneration are identifiable. There do not appear to be anaplastic changes notable.

A small portion of the wall of the grossly described abscess is found to have considerable purulent exudate along one surface, and deep to this the granulation tissue shows large numbers of small and larger capillaries through a loose fibrous supporting tissue. There is very marked infiltration with polymorphonuclear neutrophilic leucocytes, large and small lymphocytes, macrophages, and eosinophils and plasma cells.

A section taken through the thickened mesentery near the terminal portion of the ileum shows there to be marked edema of the tissue, this being principally adipose tissue and loose areolar connective tissue. There are several large arterioles through the structure, and many round cells

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are noted in the perivascular areas. Collections of lymphocytes are seen in the regions immediately beneath the serosa and markedly in the peri-vascular regions of the hyperemic zone here. Several small lymph nodules are noted, the chief observations being lymphoid cell proliferation with considerable reticuloendothelial hyperplasia. No areas of caseous necrosis are noted in these structures.

A lymph node taken near the side of the grossly described abscess near the ileocecal junction is found to have some thinning of the capsule as well as decreased fibrous tissue stroma of the gland. The lymphoid elements are still present, however, the lymph nodules are scattered and display moderate sized germinal centers surrounded by only a narrow zone of larger lymphocytes. The lymph sinuses and cords of Billroth are not seen, instead the node has a rather "washed out" appearance.

Diagnosis: Ileitis, regional. Abscess, ileocaecal junction.

Postoperatively the patient was given another blood transfusion, was kept on continuous Wengsten suction, and was fed intravenously until bowel sounds returned on the third postoperative day. She was then started on a gradually increasing diet, at first fluids and later a regular diet. She was gotten out of bed on the first postoperative day, and on the fourteenth postoperative day attended a dance at the Officer's Club. She was discharged three weeks postoperative, and at this time had gained five pounds and had a good appetite. Her stools which had been loose and numerous the first ten days postoperative had become normal, and at the time of discharge she was having one to two bowel movements a day. There were no cramps.

Case Discussion

Appendectomy.

In view of the fact that fistula formation is part of the natural course of the disease it is usually considered inadvisable to do an appendectomy in the presence of regional enteritis. The fact that no serious consequences resulted in this case does not in any way alter this statement.

Plans of Procedure.

If regional enteritis is discovered in an acute phase at operation it is a little difficult to decide exactly what procedure is indicated. Primary resection of the involved area not only is unnecessary but carries a high operative mortality and should not be done in average hands.

Enterostomy has been advised but does not seem to be indicated unless there is relatively complete obstruction. Due to the fact that skip areas may develop, placement of the enterostomy also is a difficult decision. Decompression by an indwelling duodenal catheter is a better procedure. Healing may be complete with conservative management or may progress to chronic obstruction, fistula formation or adiarrehal state somewhat resembling ulcerative colitis.

In the case under discussion it was felt unwise to do a primary resection because of the magnitude of the procedure and also because of the fact that it might not have been necessary. A short-circuiting procedure is relatively simple, may be curative, and even if future surgery is required this short-circuiting forms the first of a two-stage resection which considerably lowers the mortality rate. Questions of operative technique are relatively unimportant and depend on the experience and preference of the individual operator. However, there seems to be no good reason for using cat-gut on the peritoneum and silk or cotton for other layers. Silk or cotton used interruptedly is a very satisfactory suture material for all layers, including the peritoneum.

Postoperative Management.

The paragraph on postoperative management in this case covers in excellent fashion a large amount of material in a small space. The only point which seems necessary of emphasis is that solid diet decreases the amount of postoperative gas pains and even in cases of gastro-intestinal suture lines liquid diet does not seem necessary.

IX. Advance Copy of TB MED 198

Pending publication of new TB MED 198 (Management of Syphilis) the contents of the advance copy are reprinted herewith for information and guidance.

1. DIAGNOSIS.

a. All patients with penile ulcers or other lesions suspicious of early syphilis should be hospitalized for diagnostic study. (This does not apply to obvious dermatologic lesions such as herpes, warts, psoriasis, lichen planus, scabies, etc.)

b. It is of the utmost importance that the diagnosis in early syphilis (primary and secondary stages be established at the earliest practicable moment and that treatment be instituted

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as soon as the diagnosis is made.

c. All ulcerative genital lesions, extragenital lesions characterized by indolence, induration, and regional lymphadenopathy, and cases of urethritis accompanied by indolent enlargement of related lymph nodes are to be regarded as probably cases of syphilitic infection until this possibility has been excluded by repeated darkfield examinations and repeated serologic tests.

(1) Darkfield examinations may be performed on material from an open lesion or obtained by puncture of a regional lymph node. The demonstration of T. pallidum is diagnostic of syphilis, but it is emphasized that this procedure should be performed by one with considerable experience, either an officer or a technician working under the supervision of an officer. Special caution is required in the differentiation of T. pallidum from saprophytic spirochetes in material obtained from the anal region and the oral cavity. There is doubt among those with considerable experience that treponemes from these sources can be differentiated by microscopic examination.

(2) Serologic examination. In general, the serologic tests for syphilis become positive within the first 10 days after the appearance of the chancre and increase in quantitative strength for the first 6 to 12 weeks. In patients with penile ulcers or other lesions suspicious of early syphilis, routine serologic tests will be done not less often than on admission, once weekly for the first month, and monthly thereafter for 5 months, unless the diagnosis is made earlier.

d. False positive serologic reactions due to nonsyphilitic diseases.

(1) Accumulated evidence indicates that the serologic test for syphilis may be temporarily positive in a variety of nonsyphilitic diseases and conditions, particularly malaria, respiratory infections, and immunizations (especially smallpox vaccination with take). It must be borne in mind that almost any infectious disease may produce a transiently positive reaction in the absence of syphilis.

(2) It has been observed that these false blood tests usually become evident from 5 days to 2 weeks following the onset of the infection. It can be definitely stated that most false reactions will become negative within 3 months and in those remaining the titre will usually be decreasing.

(3) If the individual gives a definite history of syphilis or if he presents clinical evidence of syphilis, a repeated positive test may be regarded as additional evidence of the disease. If, however, upon careful history and examination the individual presents no evidence of syphilis, he should be followed with quantitative serologic tests, and without treatment, for a period of 3 months, serologic tests being performed each 2 to 4 weeks. Spinal fluid examination should be performed early in the observation period. It should be noted that in so-called biologic false serologic tests for syphilis the titre usually remains low as compared with usually higher titred tests in untreated fresh syphilitic infections. At the end of the 3 months' observation period the patient should be completely reappraised to ascertain whether or not syphilis may be present. In this reappraisal the following considerations will apply:

(a) Those whose serologic tests have become negative will be discharged as nonsyphilitic.

(b) Those having a persistently positive reaction with stabilized or rising titre on successive specimens during the 3-month period will be diagnosed as syphilis and treated.

(c) All others should be subjected to further serologic and clinical follow-up. This group represents one of the most difficult problems in syphilology, and wherever possible consultation should be obtained prior to final disposition.

2. TREATMENT OF SYPHILIS. Penicillin is the drug of choice. It will be used in the treatment of primary, secondary, and latent syphilis. (It is essential that a preliminary spinal fluid examination be made in all cases of presumed latent syphilis. If the spinal fluid is abnormal as defined in paragraph 4a(2), TB MED 48, the case must be classified as asymptomatic neurosyphilis and be managed according to that directive.)

a. Patients who are being treated with mapharsen-bismuth will be placed on penicillin therapy and managed thereafter in accordance with the provisions of this bulletin.

b. Patients who have completed mapharsen-bismuth treatment and failed to respond satisfactorily will be treated with penicillin. This includes-

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(1) Clinical relapse, such as mucocutaneous, ocular, osseous, or visceral.

(2) Serologic relapse, as evidenced by reversal of a negative serologic test for syphilis (STS) following mapharsen-bismuth therapy to positive or a marked rise in the quantitative test during the 6 months posttreatment observation period. Criteria of serologic relapse are discussed in paragraph 7b.

(3) Serum-fastness, only in patients treated for primary or secondary syphilis, by a persistent positive STS at the end of mapharsen-bismuth therapy.

3. TECHNIC OF PENICILLIN TREATMENT OF SYPHILIS.

a. Facilities and personnel. Penicillin therapy requires hospitalization of approximately 10 days, including 8 days of therapy, and time consumed for pre-therapeutic diagnostic procedures and administrative details.

b. Type of Penicillin. Crystalline penicillin G will be used routinely in the treatment of all types of syphilis. Amorphous penicillin is not to be employed.

c. Dosage and technic of administration of penicillin.

(1) The total dosage for early (sero-negative and sero-positive primary and secondary) and latent syphilis will be 4,800,000 units given in 96 consecutive intramuscular injections of 50,000 units at 2-hour intervals day and night for 8 days.

(2) The solution should be made with distilled water or saline and should be injected intramuscularly into the upper outer quadrant of alternate buttocks.

(3) No additional anti-syphilitic therapy is to be given during or after the completion of the course of penicillin except in the case of penicillin treatment failures discussed in paragraphs 7 and 8.

d. Noninterruption of penicillin treatment. Treatment should continue without interruption after its initiation. On the first day of treatment, commonly, and during the course of treatment less frequently, minor reactions may be encountered. None of these is indication for the discontinuance or interruption of therapy. There have been a few instances (such as severe exfoliative dermatitis and angioneurotic edema) in which it has been necessary to discontinue or interrupt the treatment schedule.

4. REACTIONS OBSERVED IN PENICILLIN TREATMENT OF SYPHILIS.

a. Herxheimer reactions. These occur frequently in cases of primary and secondary syphilis, less commonly in cases of latent syphilis, and rarely in cases that have already received some anti-syphilitic therapy. The manifestations may be focal or systemic and are ascribed to the massive destruction of treponemes in the syphilitic lesions and in the blood stream. Both the focal and systemic Herxheimer reactions are encountered on the first day of treatment only. They begin usually some 3 to 6 hours after the first penicillin injections, gradually become worse, and reach a peak, after which they slowly and progressively subside, disappearing within an average of 24 hours. No specific therapy is required although such drugs as aspirin and codeine may be given for relief of symptoms. It must be emphasized that these symptoms disappear spontaneously in spite of the continued, regular administration of penicillin, and are not justification for discontinuance of therapy.

(1) The focal Herxheimer reaction consists of an aggravation of the existing syphilitic lesions. There may be increased swelling of the chancre, further enlargement of already enlarged regional lymph nodes accompanied by pain, and exaggeration of the secondary eruption. A pallid, sparse, macular eruption often becomes extremely profuse and vividly red, and may resemble measles or scarlet fever.

(2) The systemic Herxheimer reaction may be manifested by a variety of symptoms, such as headache, malaise, nausea, occasionally vomiting, abdominal cramps, and weakness, but its most characteristic features are chilly sensations and fever. Peak temperatures of 105.4°F. have been recorded, although generally lower grades of fever prevail.

b. Other reactions due to penicillin. Other reactions caused by penicillin have been extremely rare and trivial in the dosages recommended in this bulletin. Most patients will complain of more or less local muscle soreness at the site of the injections, but usually this has not been objectionable. The most common late systemic reactions have been secondary fever occurring toward the end of treatment and terminating immediately on its cessation; urticaria or other minor skin eruptions; generalized pruritus; herpes labialis and progenitalis; and mild gastro-

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intestinal symptoms such as abdominal cramps, nausea, and occasionally vomiting.

5. POSTTREATMENT MANAGEMENT OF PATIENTS TREATED FOR SYPHILIS WITH PENICILLIN.

a. Quarantine. Individuals who have undergone treatment will be placed in working quarantine in compliance with paragraph 1b(5), Section IV, War Department Circular 227, 20 August 1947.

b. Serologic and clinical follow-up. All syphilis cases treated with penicillin will have a monthly inspection and quantitative STS for a period of 12 months.

(1) Laboratory technic. In patients treated for syphilis with penicillin, laboratory procedures will be performed whenever possible in the local Army laboratory authorized to conduct such serologic tests. In those situations where no Army serologic laboratory is locally available, blood serum and spinal fluid will be shipped to the nearest Army medical laboratory authorized to perform serologic tests. Special tubes containing preservative for the shipment of specimens of blood serum and spinal fluid will be provided on request.

(2) Quantitative serologic tests for syphilis. On each specimen of blood the medical officer should request the laboratory to perform the authorized quantitative STS, described in TM 8-227, and to report the result in units.

c. Spinal fluid:

(1) In primary and secondary syphilis the spinal fluid will be examined as soon after the completion of 6 months of observation as feasible. In no case will the syphilis register be closed until this examination has been accomplished.

(2) Spinal fluid tests to be performed. Cell count; pandy or Nonne-Apelt qualitative tests for protein; quantitative estimation of total protein; complement fixation (Kolmer) test, or, if this is not feasible, a flocculation test; and colloidal gold test. The cell count and Pandy or Nonne-Apelt test should be performed at the local laboratory within 30 minutes after the spinal fluid is withdrawn.

d. Special administrative features of penicillin treatment.

(1) Preparation of the syphilis register (WD AGO Form 8-114) (formerly WD MD form 78). This will be filled in completely in the usual manner and a brief note describing the treatment procedure will be made in the register. A sample note reads as follows: "Soldier received intensive penicillin G therapy from 20 June 1944 to 27 June 1944 consisting of 96 consecutive intramuscular injections of 50,000 units at 2-hour intervals for a total dose of 4,800,000 units. There was a febrile Herxheimer reaction the first day with peak fever of 102.4°F. Lesions were healed when therapy was completed." Notation will also be made in the register that patient is to be managed in accordance with TB MED 198.

(2) Preparation of WD AGO Form 8-115 (Patient's Record of Syphilis Treatment) (formerly WD MD form 78a) (Patient's Treatment Record). This will be prepared as a personal record for the soldier. A brief account of the treatment status of the patient will be entered. This can be done simply by repeating the note made in the syphilis register, described in (1) above. An additional statement will be made to the effect that no further treatment is required, except in the event of clinical or serologic relapse, but that the patient will have a regular monthly physical examination and blood test. This form can be used as a record of follow-up and a reminder for the soldier by inscribing at each visit the date set for the next examination.

(3) Closure of the syphilis register.

(a) Primary and secondary syphilis. The syphilis register will be closed in primary and secondary syphilis and transmitted to The Surgeon General after 12 months of observation in all patients who have become and remained serologically negative; who have had no evidence of clinical relapse; and who have had a negative spinal fluid between the completion of 6 months of observation and the closure of the register.

(b) Latent syphilis. The syphilis register will be closed in latent syphilis and transmitted to The Surgeon General after 12 months of observation if there has been no clinical or serologic relapse, even though the serologic tests have remained persistently positive. It is anticipated that serum-fastness will not be uncommon in cases that receive penicillin therapy in the latent stage of syphilis.

6. CLINICAL AND SEROLOGIC POSTTREATMENT COURSE OF FAVORABLY RESPONDING PENICILLIN-TREATED SYPHILIS.

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a. Primary and secondary syphilis.

(1) Clinical course. The rate of healing of primary and secondary syphilitic lesions varies, depending principally upon the type of lesion. Ordinarily, simple chancres of small size, mucous patches, and macular eruptions are healed by the time the treatment course is completed. Large ulcerated chancres, deeply infiltrated papular eruptions, and large condylomata lata may not heal completely for 1 to 3 weeks after treatment is concluded. Presence of such lesions, unless physically incapacitating or requiring extensive local treatment, will not be cause for prolonged hospitalization.

(2) Serologic course. The titre of the STS declines gradually from positive to negative in the posttreatment period, the negative phase being achieved in a variable time. The majority of cases become negative between the second and fourth posttreatment months, although earlier and later reversals occur. In general, the higher the initial titre of the quantitative STS the longer the test will take to become negative.

(3) Critical relapse period. The critical period for relapse, both clinical and serologic, appears on the basis of present information to lie between the third and ninth posttreatment months, although relapses have occasionally been observed at earlier and later periods.

b. Latent syphilis.

(1) Clinical course. Since these patients have no visible syphilitic lesions, no observations as to healing can be made.

(2) Serologic course. The serologic curve may take the same course as that observed in primary and secondary syphilis. This is especially true of cases of very early latent syphilis, notably those which have only recently passed from the secondary phase into the phase of latency. On the other hand, individuals with older latent syphilis are likely to exhibit serologic refractoriness, the STS showing either no tendency or little tendency to lose strength. This results in the case having to be classified eventually as serum-fast.

7. DEFINITION OF PENICILLIN FAILURE. Care should be exercised in the determination of failure since patients may develop intercurrent skin eruptions of nonsyphilitic character. Intercurrent infections and smallpox vaccination may produce a temporary elevation of the titre of the quantitative STS. All forms of clinical relapse are generally accompanied by serologic relapse, or by persistently high serologic titres. Treatment failures may be divided into nine categories.

a. Mucous and/or cutaneous relapse is manifested by the appearance of syphilitic lesions of the mouth, genitals, and skin, the latter especially in the anogenital region. There may be lesions of both skin and mucous membranes (mucocutaneous relapse) or of either surface alone. Dark-field examinations should be performed to corroborate the diagnosis. If darkfield examination is negative, repeated quantitative STS should be performed which will reveal a progressively rising titre. Serologic relapse usually precedes mucocutaneous relapse. In doubtful cases, consultation is desirable.

b. Serologic relapse is manifested by a rising titre of the quantitative STS after the test has become negative or has manifested a previously falling trend. When a serologic relapse is suspected, the patient should be thoroughly and frequently examined, since serologic relapse is usually accompanied or shortly followed by mucocutaneous or some other clinical relapse. Since the titre of the quantitative STS may vary from time to time as a result of laboratory technic - and in different laboratories - it is not sufficient to accept minor fluctuations in the titre as evidence of serologic relapse. Serologic relapse should be diagnosed only when a series of consecutive tests, performed preferably in the same laboratory, shows persistently increasing titres over a period of 3 to 4 weeks. In the event that a titred test is not available, a change from a doubtful or negative reaction to a persistently positive reaction will be accepted as adequate evidence of serologic relapse. It should be noted that the titre characteristically rises during and, for a brief period, after penicillin therapy. This elevation is temporary and is not to be considered evidence of serologic relapse.

c. Serum-fastness in primary and secondary syphilis is manifested by a failure of the quantitative STS to show a marked decline within an arbitrary period of 6 months after completion of therapy. Minor fluctuations in the titre may be observed, and also a drop to a lower sustained level, but there is no consistent, gradual, and maintained fall to negative. This condition will be uncommon in primary and secondary syphilis, where it will be considered a treatment failure when present 6 months after completion of therapy. It will not be uncommon in latent syphilis, in which it will not be considered a treatment failure.

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d. Neurologic relapse (neuorecurrence) may occur as acute syphilitic meningitis, with headache, dizzy spells, fever, and rigidity of the neck. In fulminant cases, coma may supervene rather rapidly. Less commonly relapse in the nervous system may appear as an isolated cranial nerve palsy or paralysis of one or more extremities. Diagnosis should be confirmed by spinal fluid examination. In these cases the neurologist should be consulted for diagnostic assistance.

e. Asymptomatic neurosyphilis is manifested only by an abnormal spinal fluid.

f. Ocular relapse may be manifested by iritis, usually unilateral, or optic neuritis, or neuroretinitis, which may be unilateral or bilateral. The latter conditions may be accompanied by headache, and blurring and progressive failure of vision. In these cases the ophthalmologist should be consulted for diagnostic assistance.

g. Osseous relapse is manifested by severe pain, often nocturnal, in the long bones, most often the tibiae, or severe headache when cranial bones are affected. Local tenderness over the affected bone is often very acute. Roentgenograms may assist in the diagnosis.

h. An extremely rare case may occur that is treatment-resistant to penicillin, where lesions fail to heal and living treponemes are present after completion of the treatment course.

i. Other forms of visceral relapse such as hepatitis have so far not been observed but should be watched for.

8. MANAGEMENT OF PENICILLIN FAILURES.

a. Cases of neurologic relapse and asymptomatic neurosyphilis will be managed in accordance with TB MED 48.

b. All other treatment failures after the 4,800,000 unit course of penicillin G will receive a second course of the drug plus adjuvant mapharsen - bismuth therapy. This will consist of 8,000,000 units of penicillin G given in 80 consecutive intramuscular injections of 100,000 units at 3-hour intervals day and night for 10 days. In addition, the patient will be given 60 mgm. of mapharsen twice weekly and 200 mgm. ($1\frac{1}{2}$ cc) of bismuth subsalicylate in oil once weekly for 10 weeks. This will comprise a total of 20 injections of mapharsen (1200 mgm) and 10 injections of bismuth subsalicylate (2000 mgm). The mapharsen bismuth therapy will be commenced concurrently with the course of penicillin. These patients will be followed during the posttreatment period as described in paragraph 6.

c. Patients who fail after the course of penicillin plus mapharsen and bismuth as described in paragraph 8b will be treated with mapharsen bismuth in accordance with the following schedule.

Week	
1	
2	
3	
4	Bismuth subsalicylate intramuscularly once weekly, 5 doses.
5	Mapharsen intravenously twice
6	weekly, total 20 injections
7	
8	
9	
10	
11	
12	
13	
14	Omit mapharsen 6 weeks----- Bismuth subsalicylate intramuscularly once weekly, 6 doses.
15	
16	
17	
18	
19	Omit bismuth for 5 weeks.
20	Mapharsen as in first course, twice
21	weekly, total 20 injections.
22	

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23
24
25
26

Bismuth subsalicylate intramuscularly once weekly,
5 doses

Mapharsen dosage: Adjusted approximately to body weight; average dose 60 mg, minimum dose 50 mg, maximum 70 mg.

Bismuth subsalicylate in oil dosage: The standard dose is 1½cc of bismuth subsalicylate in oil, given intramuscularly. This amount contains 200 mg of the salt of bismuth subsalicylate (not 200 mg of bismuth metal).

9. NEUROSYPHILIS. These cases require special hospital management and treatment, and should be referred to the neurosyphilis centers in accordance with the provisions of TB MED 48.

10. CONGENITAL SYPHILIS. Congenital syphilis will be treated according to the stage of disease, as in acquired syphilis.

PART III - STATISTICAL

Evacuation

During the period 27 Mar to 30 Apr 1948, the following patients were evacuated from the several major commands:

Evacuations per thousand strength
for the period 27 Mar to 30 Apr 1948:

	AIR	WATER	TOTAL
JAPAN	227*	69*	296*
KOREA	101**	0	101
MARBO	16	16	32
PHILRYCOM	42	0	42

JAPAN	3.4*
KOREA	3.3
MARBO	1.2
PHILRYCOM	.82
THEATER	2.7

*Includes air evacuees from Korea

**Patients evacuated to Japan for onward evacuation

Hospitalization

1. The bed status report as of 30 April 1948 was as follows:

	Total T/O Beds Present	Total T/O Beds Establ.	Total T/O Beds Occupd.	% T/O Beds Occupied	% Operating Beds Occupd.
JAPAN	4,450	4,602	1,885	42	41
KOREA	2,050	1,198	674	33	56
MARBO	825	443	231	28	52
PHILRYCOM	2,350	2,275	1,203	51	53
THEATER	9,675	8,518	3,993	41	47

2. Tables showing various admission rates per 1,000 per annum for the 4-week period ending 30 April 1948:

	THEATER	JAPAN	KOREA	MARBO	PHILRYCOM
All causes	558	694	654	275	433
Disease	509	630	585	222	385
Injury	60	64	69	53	48
Psychiatric	16	15	29	17	9.3
Rheumatic Fever	1.1	.54	3.6	0	.95
Common Respiratory Disease	82	102	130	14	48
Influenza	2.1	3.8	0	.49	1.4
Primary Atypical Pneumonia	6.0	4.7	11	2.0	6.7
Common Diarrhea	7.1	1.9	13	.49	16
Bacillary Dysentery	1.1	.27	1.4	0	2.9
Amebic Dysentery	2.6	.81	1.1	0	8.1
Malaria	4.8	1.4	2.2	.49	13
Infectious Hepatitis	3.9	4.5	4.7	2.0	3.3
Mycotic Dermatoses	7.1	8.7	15	0	2.4
Venereal Disease	87	120	103	17	53

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The editor of the Surgeon's Circular Letter extends an invitation to all personnel of the Medical Department to prepare and forward, with a view to publication, articles of professional or administrative nature. It is assumed that editorial privilege is granted in reviewing the copy submitted for publication. Authors are urged to keep their papers brief. Articles should be forwarded so as to reach the Medical Section, GHQ, FEC, not later than the 20th of the month preceding the publishing of the Circular in which it is desired.